

## **Program Description/Textbook or Print Instructional Material**

Vendor: Delmar Learning Web Address: www.delmar.com

Title: Foundations of Electronics: Circuits and Devices

Author: Meade Copyright: 2003

ISBN: 0-7668-4026-3 Course/Content Area: Vocational and Career Education; Industrial Technology; Electronics Technology

Intended Grade or Level: 9-12 Readability Level: 9.7 (Flesch Kincaid)

List Price: 140.95 Lowest Wholesale Price: 104.75

*All materials bid as of July 1, 2003 must be offered in an alternative format for students who require reading accommodations. A description of the levels of accommodation is included on p. 8-9 of this bid packet. The Kentucky Department of Education must receive a copy of the alternative format if the material is placed on the State Multiple List.*

Level of Accommodations (Level One, Two or Three) Level Three

If Level Two or Three, please provide rationale for not meeting Level One Compliance It is not financially feasible for our products to meet Level One at this time.

## **FEATURES**

**DISCLAIMER:** The features of each book or program were developed by the publisher and do not reflect the opinion of the State Review Team, State Textbook Commission, nor of the Kentucky Department of Education.

### **Content**

- Extensively updated to better meet the needs of today's technician's, the final ten chapters provide a first-rate introduction to modern electronic devices, with greater emphasis on integrated circuits and op-amps plus all-new coverage of optical components.
- Equipped with an understanding of circuit behavior, readers move on to the study of more complex topics, including: network theorems, magnetism, resonance, and more.
- the SIMPLER method develops critical-thinking skills while introducing readers to step-by-step techniques for systems block-level and discrete component-level troubleshooting
- Practical Notes, Troubleshooting Hints, Safety Hints, plus Good Ideas highlight important information, maintain interest, and link theory to practice

### **Student Experiences**

- the shift from a component-level to a systems-level approach allows readers to move easily from the known to the unknown, gaining the foundation in modern electronics they need to launch a career or pursue more advanced study
- spreadsheet exercises solved with Microsoft Excel and MultiSIM circuit simulation problems allow readers to gain valuable experience using the computer as a problem-solving tool

### **Assessment**

From principles of basic circuits through analysis of passive and active circuit components, Foundations of Electronics: Circuits and Devices is the perfect choice for introducing readers to the world of electronics technology. Chock full of full-color charts, photographs, schematics and diagrams, this newly redesigned edition uses real-world color codes and strategic highlighting to focus attention on key points. Reader-friendly and ideal for technician training, this comprehensive book begins by exploring basic concepts such as voltage, current, plus power and resistance in series, parallel and combination circuits.

### **Organization**

- Throughout the book, step-by-step examples and practice problems appear directly after explanations of key concepts, providing a bridge between must-know theory and hands-on circuit work.
- Attention-getting previews, helpful key terms lists, learning objectives, summaries and other pedagogical aids have also been integrated into every chapter to motivate users and build their confidence.
- In-Process Learning Checks allow readers to gauge their understanding of key concepts immediately after they are presented, instilling confidence as they work through the book

### **Resource Materials**

#### **Gratis Items To Be Provided And Under What Conditions**

Instructor's Manual (0-7668-4030-1) Free 1 per teacher

#### **Available Ancillary Materials**

## **RESEARCH DATA AND EVIDENCE OF EFFECTIVENESS**

**DISCLAIMER:** The research data and evidence of effectiveness was provided by the publisher and does not reflect the opinion of the State Review Team, State Textbook Commission, nor the Kentucky Department of Education.

**NOTE:** Please complete this section by indicating the research data and evidence of effectiveness or give a web site where the information is located. If there is no research data and evidence of effectiveness, please indicate **“not available”** in the space.



# Group V - Career/Technical Vocational/Practical Living Education Instructional Materials Evaluation Tool Manufacturing Career Cluster



<b>Title:</b> Foundations of Electronics Circuits & Devices / \$104.75			
<b>Publisher:</b> Delmar			
<b>Item Evaluated:</b> Textbook & Instructor's Guide			
<b>Copyright Date:</b> 2003		<b>Evaluator:</b> Tomlinson/Wilson	
<b>Content Level:</b> 9-12		<b>Date of Evaluation:</b> 7-29-03	
<b>Level of Alternative Format</b>	Level 1 – Full Compliance	Level 2 – Provisional Compliance	Level 3 – Marginal Compliance
This section completed by Exceptional Children Services			

## Overall Strengths and/or Weaknesses

**Disclaimer:** Comments on the strengths and/or weaknesses of each book, material or program were written by members of the State Textbook/Instructional Materials Review Team and reflect their opinions . They do not reflect the opinions of the State Textbook Commission nor the Kentucky Department of Education. In addition, the State Textbook/ Instructional Materials Review Team completed each evaluation form during the week of July 28-Aug. 1, 2003. In order to maintain the integrity of the of the review team's comments, editing was limited to spelling and punctuation.

<b>Recommendations:</b>
<input checked="" type="checkbox"/> Recommended by reviewers to State Textbook Commission
<input type="checkbox"/> Not recommended by reviewers to State Textbook Commission

**Publisher's Explanation of Reviewer's Comments:** By action of the State Textbook Commission, publishers are provided limited space, 150 words, to respond to what they may consider factual errors made by the reviewers in the evaluation.



# **Group V - Career/Technical Vocational/Practical Living Education Instructional Materials Evaluation Tool Manufacturing Career Cluster**



<b>Title: Foundations of Electronics Circuits &amp; Devices</b>		<b>Delmar</b>
Technology Management Summary Data:	20 possible points	____20____ points earned
Technology Management Comments:		
Technology Presentation/Interface Summary Data:	40 possible points	____36____ points earned
Technology Presentation/Interface Comments:		
Content Summary Data:	140 possible points	____37____ points earned
45Content Comments:		
Instruction & Management Summary Data	52 possible points	____45____ points earned
Instruction & Management Comments:		
Organization & Structure Summary Data	36 possible points	____30____ points earned
Organization & Structure Comments:		
Resource Material Summary Data	40 possible points	____16____ points earned
Resource Material Comments:		



# Group V - Career /Technical & Vocational/Practical Living

## Electronic Instructional Media Review Form

### Stand Alone/Independent or Integrated Software for Manufacturing Career Cluster



Equipment (circle or change fill color)	Grade Level (circle or change fill color)	Audience (circle or change fill color)	Format (circle or change fill color)	Cost _____	
Windows	Primary	Individual	Stand Alone/Independent	_____ single copy	_____ site license
Macintosh	Intermediate	Small Group	Integrated	_____ network version	_____ school version
CD-ROM	Middle	Large Group	Supplemental	_____ lab pack of _____ copies	_____ online
DVD	High		In lieu of basal test		
Sound					
Other					

If other, explain

Type of Software: Check all that apply	<input type="checkbox"/> Simulation	<input type="checkbox"/> Management	<input type="checkbox"/> Interdisciplinary	<input type="checkbox"/> Problem Solving	<input type="checkbox"/> Tutorial
<input type="checkbox"/> Exploratory	<input type="checkbox"/> Creativity	<input type="checkbox"/> Drill and Practice	<input type="checkbox"/> Critical Thinking	<input type="checkbox"/> Utility	<input type="checkbox"/> Other:

Rating Scale:	3—Some of the time	1—None of the time
4—All or the time	2—Minimally	0— Not applicable

Management	Rating
Allows customizing for individual learning needs.	4
Allows students to exit and resume at a later time.	4
Keeps a students performance record, where needed.	4
Allows control of various aspects of the software (e.g., turning sound off).	4
Allows for printed reports.	4
Comments:	<b>Total</b>
	<b>20</b>

Presentation/Interface	Rating
Presents material in an organized manner.	4
Has consistent, easy-to-use, on-screen instructions.	4
Has developmentally correct presentation format.	4
Adapts to different learning environments (learning styles/multiple intelligences, etc.)	3
Accessible for special needs students.	2
Runs smoothly, without long delays.	4
Presents easy-to-view text and graphics.	4
Presents easy-to-hear and understand sounds.	4
Avoids unnecessary screens, sounds, and graphics.	4
Provides immediate, appropriate feedback.	3
Comments:	<b>Total</b>
	<b>36</b>

Content— Manufacturing Career Cluster	Rating
Electrical/Electronic Safety	2
Direct Current Circuits/Lab	3
Alternating Current/Lab	4
Electrical Principals	4
Electronic Devices and Circuits	4
Electronic Drafting	0
Microcomputer Operating Systems	1
Fundamentals of Machine Tools	0
Applied Machining	0
Manual Programming CAD/CAM/CNC	0
Blueprint Reading	4
Computer Fundamentals	1
Fluid Power/Lab	0
Industrial Maintenance Electric Motor/Lab	0

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable

Content— Manufacturing Career Cluster	Rating
Maintaining Industrial Equipment	0
Industrial Safety	2
Pneumatic Systems/Lab	0
Technical Communications	0
Technical Math	4
SMAW Plate Labs	0
Gas Tungsten Arc Welding/Lab	0
Certification Welding/Lab	0
Oxy-fuel Cutting Lab	0
Wood Product Manufacturing	0
Wood Finishing	0

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable

Content— Manufacturing Career Cluster	Rating
Technical Drawing and Blueprint Reading	4
Millwork Technology	0
Furniture Technology	0
Basic Refrigeration and Air Conditioning	0
Electrical Components and Test Equipment	4
Gas/Electric Appliance Applications	0
Maintenance of Industrial Equipment	0
Polymer Science and Testing	0
Environmental Practices	0
Project Lead The Way (Pre-Engineering)	0
Comments:	<b>Total</b> 37

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable



Instruction and Assessment	Rating
Identifies a Sense of Purpose	4
Builds on Student Ideals	4
Engages Students	4
Develops Computer Maintenance Ideas	0
Promotes Student Thinking	4
Assesses Student Progress	4
Enhances The Learning Environment	4
Reading level is appropriate for interest and ability level of intended student group; level remains consistent throughout.	2
Commonwealth Accountability Testing System (CATS) "like" Assessment is provided	3
Variety of Assessments (diagnostic, formative, summative, open response, multiple choice, individual, small group, oral, demonstrations, presentations, self and peer performance, portfolio prompts) is included.	4
Includes activities and opportunities for integration of technology.	4
Reflects researched-based practices (e.g. hands-on activities, technology, problem-solving situations)	4
Differentiation techniques and activities suggested.	4
Comments:	<b>Total</b> <b>45</b>

Rating Scale:	3 – Some potential for learning	1 - Not present
4 – High potential for learning	2 – Little potential for learning	0 – Not applicable

Organization and Structure	Rating
Organization is logical and allows for spiraling of content.	4
Vocabulary and key terms are clearly defined and easily accessible within each lesson.	4
Visual illustrations (e.g. graphs, charts, models) and examples are clearly presented and content-related.	4
Illustrations and language reflect diversity (e.g. racial, ethnic, cultural, age, gender, disabilities).	0
Legible type, length of lines, spacing, and page layout and width of margins contribute to overall appearance and use.	3
Student materials seem durable and conducive to daily use.	4
Includes sufficient glossary, index and appendices.	4
Employs accurate grammar and spelling	4
Organization of material can be effectively used with Standards Based Units, Core Content and Program of Studies.	3
Comments:	<b>Total</b> <b>30</b>

Resource Materials	Rating
Teacher materials coordinate easily with student materials (e.g. additional resources included at point of need, student pages shown, integration of technology indicated)	3
Activities are included that adapt to the various learning styles, intelligences, and interest/ability levels.	4
Extension activities including adaptations and accommodations for students with special needs.	1
Resources provide objectives, background information, common student errors, hints, advice for lesson implementation and real-world connections, connections with career and/technology and references (e.g. solution manuals, study guides)	3
Suggestions are made for integration of themes and /or interdisciplinary instruction.	3
Integration opportunities suggested and examples given.	2
Teacher resources are available online.	0
Online resources available – Repeat of information in text.	0
Online resources available – Practice skills only.	0
Online resources available – New application materials.	0
Comments: Lab Book was not included. <a href="http://www.electronictech.com">www.electronictech.com</a>	<b>Total</b> <b>16</b>

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable